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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/771,562	02/04/2004	Kishio Yokouchi	0 2EK-105595	3730
30764	7590	06/28/2005	EXAMINER	
SHEPPARD, MULLIN, RICHTER & HAMPTON LLP			RAHLL, JERRY T	
333 SOUTH HOPE STREET			ART UNIT	
48TH FLOOR			PAPER NUMBER	
LOS ANGELES, CA 90071-1448			2874	

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

<b>Office Action Summary</b>	Application No. 10/771,562	Applicant(s) YOKOUCHI ET AL.	
	Examiner Jerry T. Rahl	Art Unit 2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 04 February 2004.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,6,10,12,13,17 and 21 is/are rejected.
- 7) ☒ Claim(s) 3-5, 7-9 11 14-16 18- 20 22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/12/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 12 March 2004 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Drawings***

2. The drawings submitted on 04 February 2004 have been reviewed and determined to facilitate understanding of the invention. The drawings are accepted as submitted.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-2, 6, 10, 12-13, 17 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application 2003/0235362 to Sugama et al.

5. Sugama et al. describes an optical switch having a single optical input (110), an active deflecting element (130) comprising an electro-optic material and at least one pair of electrodes (130, 131) responsive to a control system to deflect the signal in one of a plurality of directions, a common waveguide (140) to accept a deflected optical signal and a plurality of four optical outputs (161-164), each corresponding to one of the plurality of directions and having passive optics (151-154, 161-164) to accept the deflected signal and where the deflection of the signal

provides switching of the optical signal to one of the outputs (see Figures 1-2B and Paragraphs [0035]-0062)).

6. Further, Sugama et al. describes the electro-optical material as PZT, PLZT or LN (see Paragraphs [0051]-[0052]).

7. Further, Sugama et al. describes the switch as a monolithic switch where the material where the signal travels through the input, common waveguide and outputs comprise the electro-optic material of the active deflecting element (see Paragraphs [0051]-[0052]).

8. Further, Sugama et al. describes a collimating element (120) to collimate the optical signal and a focusing element (151-154) the optical outputs.

***Allowable Subject Matter***

9. Claims 3-5, 7-9, 11, 14-16, 18-20 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Claims 3-5 and 14-16 describe the electrodes of the pair being of similar shape. Claims 7-8 and 18-19 describe the common waveguide output has a facets perpendicular to the plurality of directions. Claims 9 and 20 describe the passive optics having an optical axis perpendicular to the waveguide output. Claims 11 and 22 describe the switch as a hybrid switch where the material of the input, common waveguide and outputs is different than the material of the deflecting element.

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry T. Rahll whose telephone number is (571) 272-2356. The examiner can normally be reached on M-Th (8:30-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jerry T Rahll



AKM ENAYET ULLAH  
PRIMARY EXAMINER